



► Overview

The ABS series servo drive adopts internationally advanced hardware architecture and redundant design scheme

The key components are strictly screened and tested and the whole machine testing is strictly standardized. Each process adopts high standards, and the stability, reliability and control accuracy of the product are at the forefront the industry. It has passed CE and other international safety certification, and has extensive compatibility. It is a high-performance motion control product developed by AB specifically for the fields of robots/manipulators packaging machinery, and 3C non-standard automation equipment. It has rich interfaces, supports multiple communication methods and position encoders, and can be matched with AB series servo motors and mainstream servo motors in the market through simple settings. It has outstanding usability, strong universality, and can also meet the customized needs of special application scenarios.



Compatible



Easy To Use



Stability



General



Precise

A & B

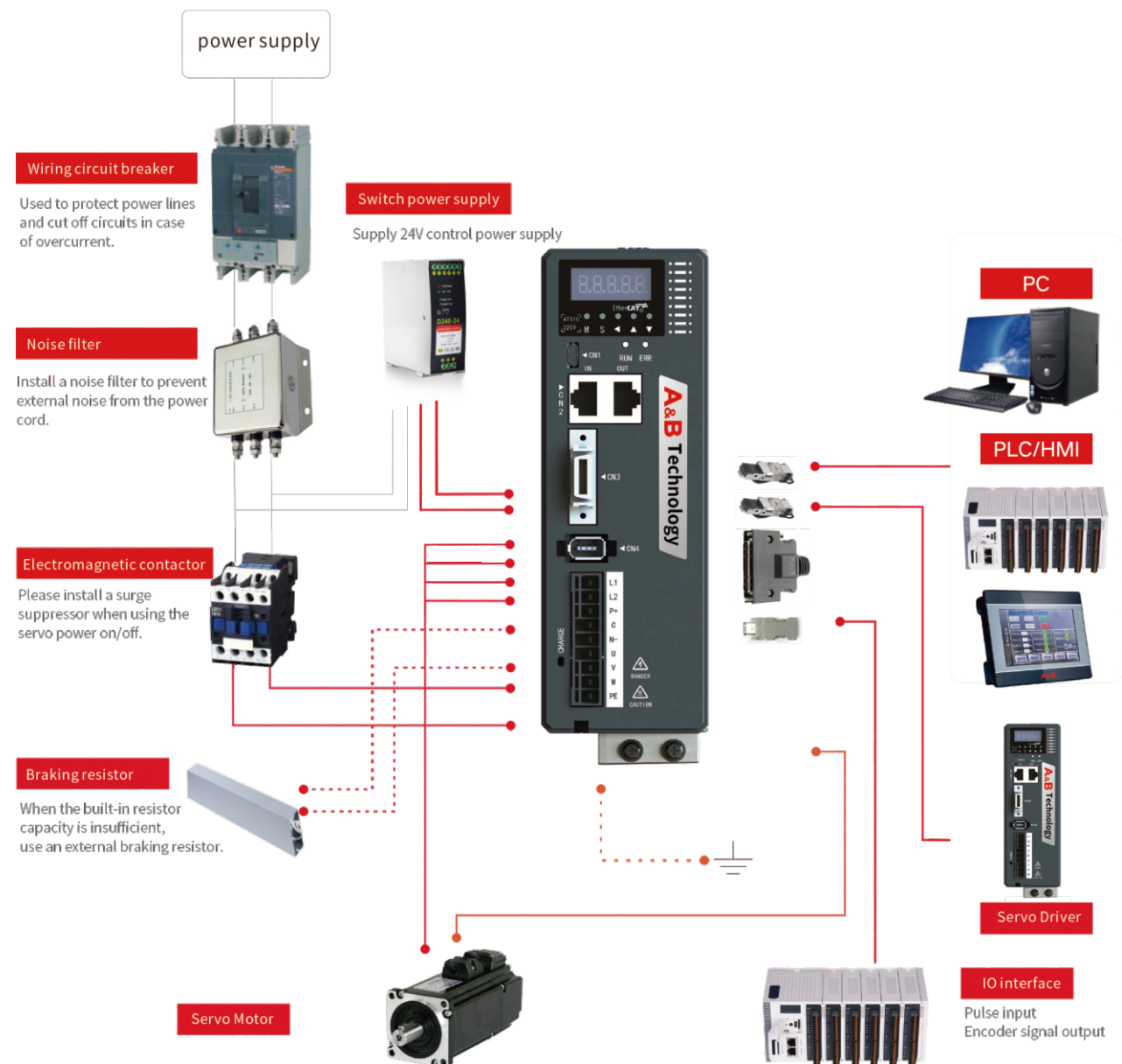
Universal compatibility, supporting multiple field bus communication protocols and encoders



EtherCAT

CANopen

CODESYS



AC servo drive models

ABS10 series AC servo drive					
Model	power (kW)	output current (A)	maximum output current (A)	Size	Input power supplyM(V)
ABS10-02A*	0.2	1.6	5.8	SIZE-A	Single phase Ac220
ABS10-04A*	0.4	2.8	10.1	SIZE-A	Single phase Ac220
ABS10-07A*	0.75	5.5	16.9	SIZE-B	Single phase Ac220
ABS10-10A*	1.0	7.6	23.0	SIZE-B	Single phase Ac220
ABS10-15A*	1.5	11.6	32.0	SIZE-E	Single phase Ac220
ABS10-15B*	1.5	11.6	32.0	SIZE-E	Three phase Ac220
ABS10-15C*	1.5	5.4	14.0	SIZE-F	Three phase Ac380
ABS10-22C*	2.2	8.4	20.0	SIZE-F	Three phase Ac380
ABS10-30C*	3.0	11.9	29.75	SIZE-E	Three phase Ac380

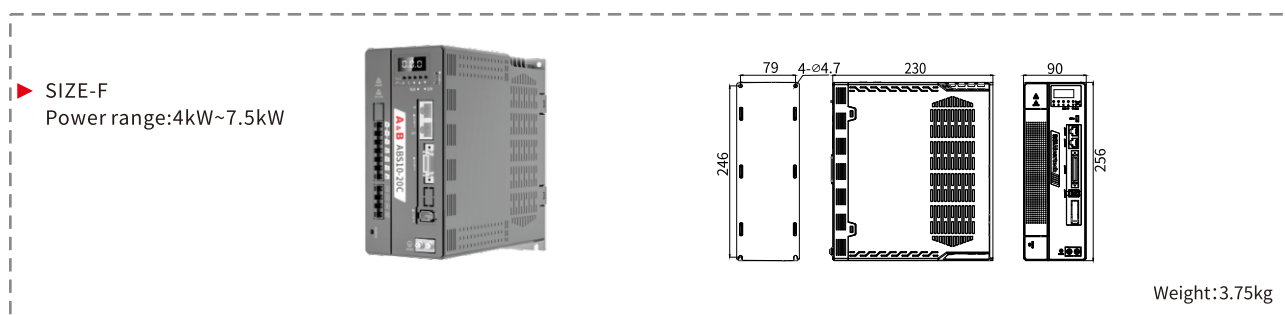
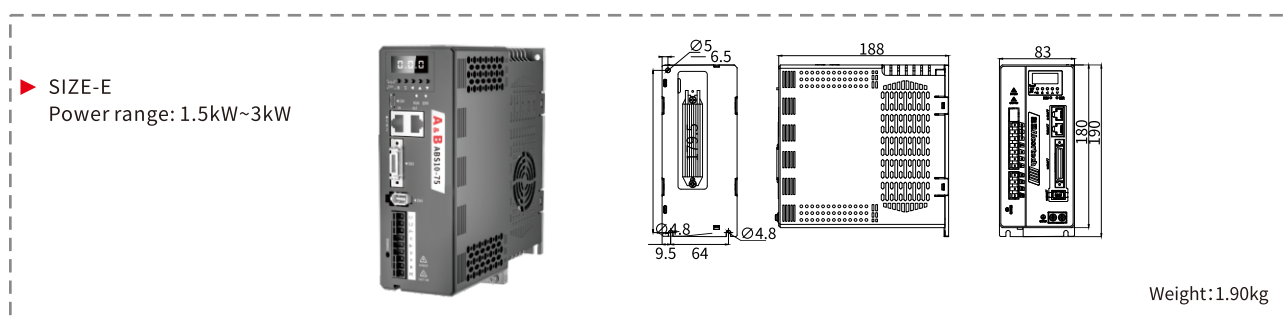
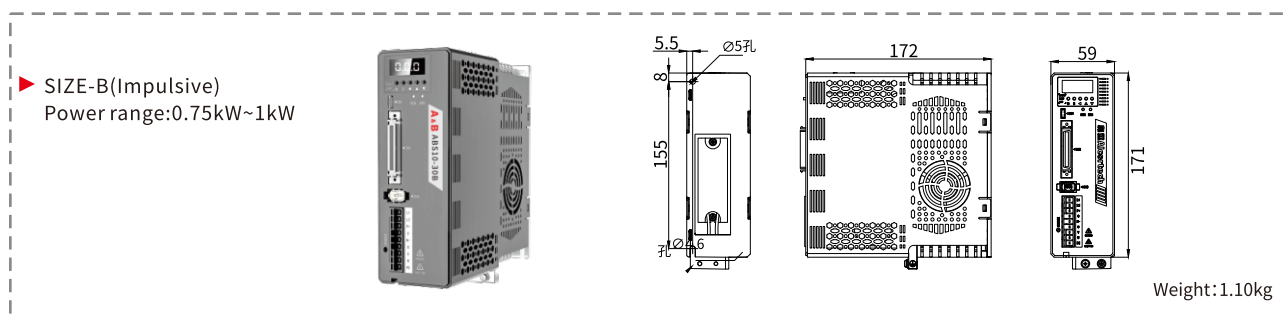
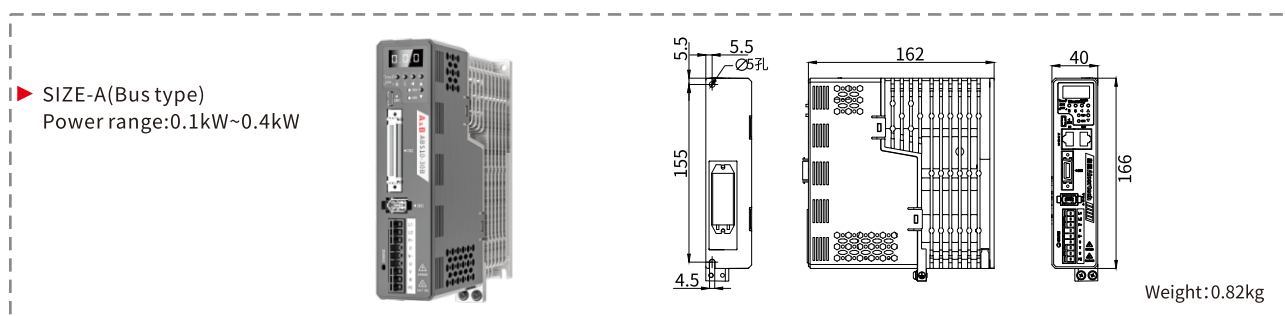
Note: Control mode, encoder feedback type, etc. in the model are replaced with ".**".
For more specific models, please refer to the model description and consult customer service.

Specification parameter table

Project		Specification parameters
Power supply	Main circuit	Single phase AC220V $\pm$ 10%; Three phase 220V $\pm$ 10%
		Three phase 380V $\pm$ 10%
	Loop	Busbar power supply
	Cooling method	$\leq$ 0.4kW: natural cooling; >0.4kW: forced air cooling
Control mode		FOC
Mode		I/O communication,EtherCAT communication, Modbus communication
Braking resistor		SIZE-A/B type external; SIZE-E type built-in (connected when capacity is insufficient)
Position control mode	Maximum input pulse frequency	Optocoupler input: 200KHz Differential input: 2MHz
	Pulse command mode	Pulse+direction; CW pulse+CCW pulse, Phase A+Phase B
	Command control mode	External pulse control/bus communication control
	Feedforward gain	Internal parameter setting
	Torque limit	Internal parameter setting
	Electronic gear ratio	N=1~32767, M=1~65535, N/M=0.02~5000
Speed control mode	Command control mode	Bus communication control/analog quantity
	Torque limit	Internal parameter setting
	Speed control range	1~6000rpm
	Acceleration and deceleration methods	Linear acceleration and deceleration or S-shaped acceleration and deceleration
Torque control mode	Command control mode	Internal instructions/analog quantities
	Speed limit	Internal parameter setting
	Torque control accuracy	$\pm$ 3%
Digital Input/Output	Encoder frequency division pulse output	A-phase, B-phase, Z-phase: differential output
		Frequency division pulse number: (16~32768) can be set arbitrarily
	Assignable input signal	Number of points:8(pulse train)Number of points:7(Bus series)
		Servo enable/forward drive disable/reverse drive disable/bias count reset/zero speed clamp/alarm reset/origin input
	Assignable input signal	Near origin input/forward limit position/reverse limit position, etc
		Number of points:6 (pulse train)Number of points: 4 (Bus series)
		Alarm signal/positioning completed/speed reached/servo ready/zero speed detection/brake opening, etc
Protection function		Overcurrent/overvoltage/undervoltage/overload/overheating/encoder error/speed deviation/position deviation/limit, etc
Auxiliary functions		JOG mode/alarm recording/origin setting, etc
Communication interface		Modbus-RTU/CANopen/EtherCAT
Encoder feedback type		Absolute value formula: 17bit/23bit (single or multiple cycles); Magnetic/Optical Encoding

Project		Specification parameters
Protection grade		Ip20
environmental condition	Usage temperature	-10 °C~+50°C (When the ambient temperature is between 40 °C~50 °C, the average load rate should not exceed 80%)
	Humidity	Below 90% RH (no freezing or condensation allowed)
	Vibration & Impact	Vibration below 4.9m/s ² ; Impact below 19.6m/s ²
	Altitude	The highest usage altitude is 2000m. At an altitude of over 1000m, for every 100m increase, the power decreases by 1.5%
	Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases, oil stains, dust, etc

External dimensions



ABS12 Series

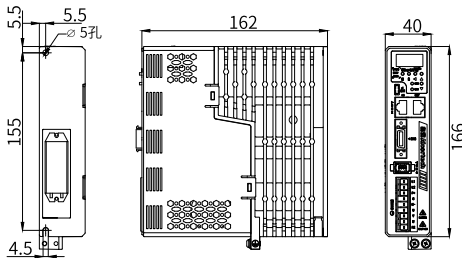
AC servo drive

注: 型号中控制方式、编码器反馈类型等以“*”代替,
更多具体型号可参考型号说明以及咨询客服。

ABS12 series AC servo drive					
型号	Size	Power (kW)	Rated Current Output (A)	Maximum Current Output (A)	Input Current(V)
ABS12-02A*	SIZE-A	0.2	1.6	5.8	Single phase Ac220
ABS12-04A*	SIZE-A	0.4	2.8	10.1	Single phase AC220
ABS12-07A*	SIZE-B	0.75	5.5	16.9	Single phase AC220
ABS12-10A*	SIZE-B	1.0	7.6	23.0	Single phase AC220
ABS12-15A*	SIZE-B	1.5	11.6	32.0	Single phase AC220
ABS12-15B*	SIZE-E	1.5	11.6	32.0	Three phase AC220
ABS12-20B*	SIZE-F	2.0	18.0	45	Three phase AC220
ABS12-25B*	SIZE-F	2.5	22.0	55	Three phase AC220
ABS12-20C*	SIZE-E	2.0	8.4	20.0	Three phase Ac380
ABS12-30C*	SIZE-E	3.0	11.9	29.75	Three phase AC380

SIZE-A(Bus type)
Power range:0.1kW~0.4kW

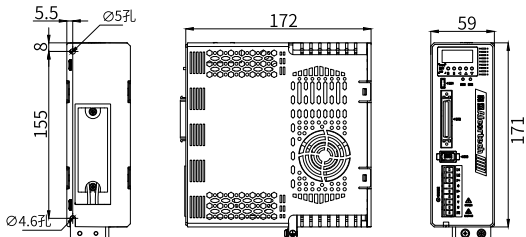




重量:0.82kg

SIZE-B(Impulsive)
Power range:0.75kW~1kW

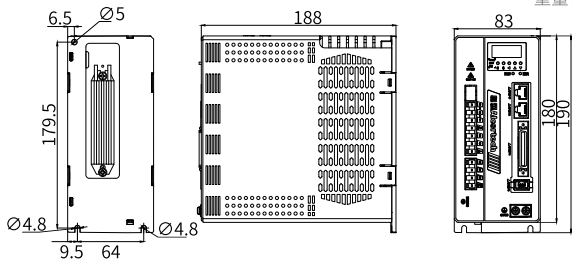




重量:1.10kg

SIZE-E
Power range: 1.5kW~3kW

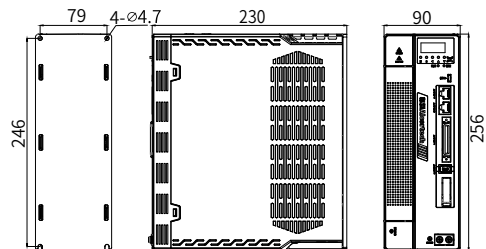




重量:1.90kg

SIZE-F
Power range:4kW~7.5kW





重量:3.75kg

ABS12 Series

AC servo drive

Project		Specification parameters
Power supply	Primary circuit	Model SIZE-A/B: Single-phase AC 220V ±10%, 50/60Hz
		Model SIZE-E: Voltage selectable based on motor compatibility, options include: Single phase AC220V±10%, 50/60Hz; Three phase AC220V±10%, 50/60Hz; Three phase AC380V±10%, 50/60Hz; Note: AC220V and AC380V are not interchangeable!
		Model SIZE-F: The voltage level can be selected as follows based on the compatible motor: Three phase AC220V±10%, 50/60Hz; Three phase AC380V±10%, 50/60Hz; Note: AC220V and AC380V are not interchangeable!
	Control circuit	Model SIZE-A/B/E: Powered via busbar Model SIZE-F: Classified according to main circuit power supply voltage as follows: Single phase AC220V±10%, 50/60Hz; Single phase AC380V±10%, 50/60Hz; Note: AC220V and AC380V are not interchangeable!
	Cooling method	Standard Version:≤0.4kW: Natural cooling
Control method		Field-Oriented Control (FOC)
Operating Mode		I/OCommunication、EtherCATCommunication、ModbusCommunication
Braking Resistor		Model SIZE-E/F: Built-in braking resistor (external resistor can be connected when capacity is insufficient)
Position controlmode	Maximum input pulse frequency	Optocoupler input: 200KHz Differential input:2MHz
	Pulse command mode	Pulse+direction; CW pulse + CCW pulse, Phase A+Phase B
	Command control mode	External pulse control/bus communication control
	Feedforward gain	Internal parameter setting
	Torque limit	Internal parameter setting
	Electronic gear ratio	N=1~32767, M=1~65535, N/M=0.02~5000
Speed controlmod	Command control mode	Bus communication control/analog quantity
	Feedforward gain	Internal parameter setting
	Torque limit	1~6000rpm
	Electronic gear ratio	Linear acceleration and deceleration or S-shaped acceleration and deceleration
Torque controlmode	Command control mode	Internal instructions/analog quantities
	Speed limit	Internal parameter setting
	Torque control accuracy	±3%
Digital Input/Output	Encoder frequency division pulse output	A-phase, B-phase, Z-phase: differential output
		Frequency division pulse number:(16~32768)can be set arbitrarily
	Assignable input signal	Number of points:8(pulsetrain)Number of point: 7(Bus series)
		Servo enable/forward drive disable/reverse drive disable/bias counter set/zero speed clamp/alarm reset/origin input Near origin input/forward limit position/reverse limit position, etc
	Assignable input signal	Number of points 6(pulse train)Number of points:4(Bus series)
		Alarm signal/positioning completed/speed reached/servoready/zero speed detection/brake opening,etc
Protection function		Overcurrent/overvoltage/undervoltage/overload/over heating/encoder error/speed deviation/position deviation/limit,etc
Auxiliary functions		JOG mode/alarm recording/origin setting, etc
Communication interface		Modbus-RTU/EtherCAT
Encoder feedback type		Absolute value formula: 17bit/23bit(single or multiple cycles); Magnetic/Optical Encoding
Protection grade		IP20
environmental condition	Usage temperature	-10℃~+50℃(When the ambient temperature is between 40℃~50℃, the average load rate should not exceed80%)
	Humidity	Below 90% RH(no freezing or condensation allowed)
	Vibration &Impact	Vibration below4.9m/s ² ;Impact below 19.6m/s ²
	Altitude	The highest usage altitude is 2000m.At an altitude of over1000m,for every 100m increase, thepower decreases by1.5%
	Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases,oil stains, dust, etc

ABS20 Series

AC servo drive

► AC servo drive models

ABS20 series AC servo drive					
Model	power (kW)	output current (A)	maximum output current (A)	Size	Input power supply(V)
ABS20-02*	0.2	1.6	5.0	SIZE-A	AC220
ABS20-04*	0.4	2.6	7.9	SIZE-A	AC220
ABS20-07*	0.75	5.1	15.5	SIZE-A	AC220
ABS20-10*	1.0	7.0	21.0	SIZE-C	AC220
ABS20-15*	1.5	8.3	25.1	SIZE-C	AC220
ABS20-22*	2.2	7.5	18.8	SIZE-E	AC380
ABS20-30*	3.0	10.0	24.0	SIZE-E	AC380
ABS20-55*	5.5	16.0	38.0	SIZE-E	AC380
ABS20-75*	7.5	25.0	60.0	SIZE-E	AC380
ABS20-110*	11.0	25.5	60.5	SIZE-G	AC380
ABS20-150*	15.0	35	82.5	SIZE-G	AC380
ABS20-220*	22.0	50	115	SIZE-G	AC380

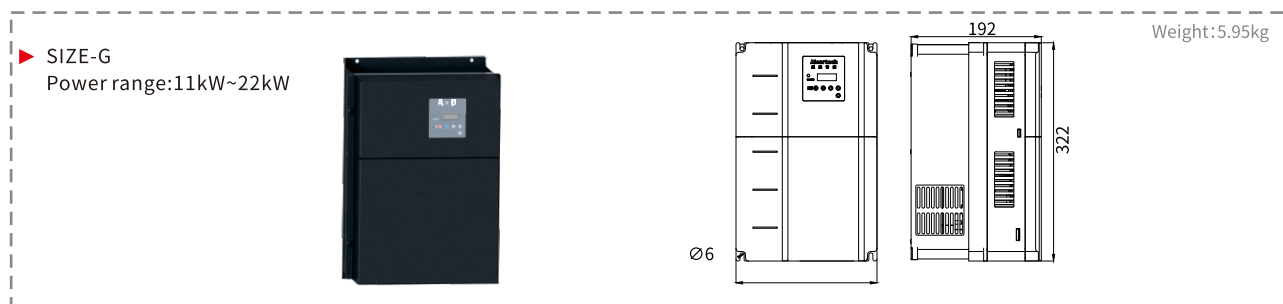
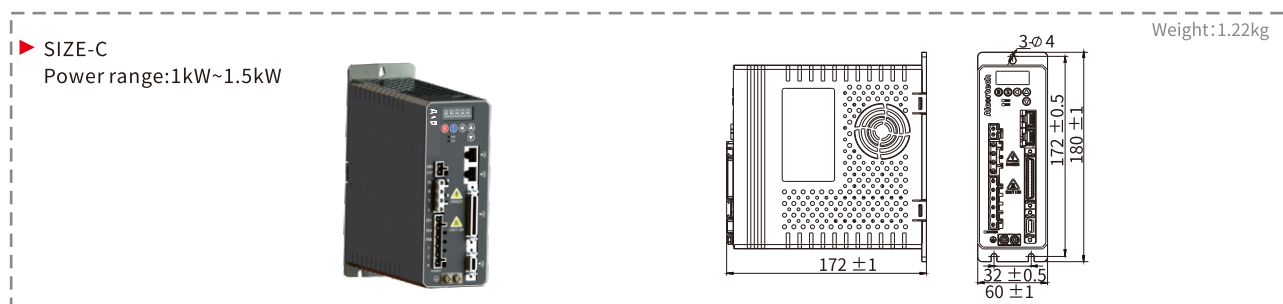
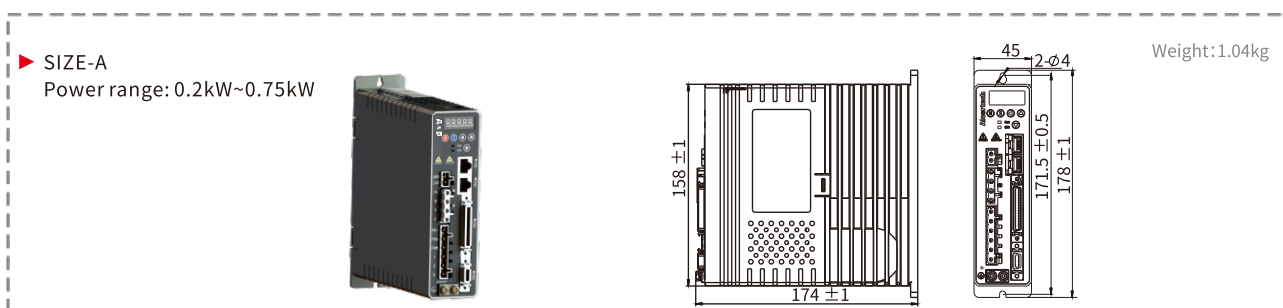
Note: Voltage, control mode, encoder feedback type, etc. in the model are replaced with "***".
For more specific models, please refer to the model description, selection table, and consult customer service

► Specification parameter table

Project		Specification parameters
Power supply	Main circuit	Single phase AC220V ± 10%; Three phase 220V ± 10%
		Three phase 380V ± 10%
	Loop	Busbar power supply
	Cooling method	≤750kW: natural cooling; >750kW: forced air cooling
Control mode		FOC
Mode		I/O communication
Braking resistor		Built-in (connected when capacity is insufficient)
Position control mode	Maximum input pulse frequency	Optocoupler input: 500KHz Differential input: 4MHz
	Pulse command mode	Pulse+direction; CW pulse+CCW pulse, Phase A+Phase B
	Command control mode	External pulse control/bus communication control
	Feedforward gain	Internal parameter setting
	Torque limit	Internal parameter setting
	Electronic gear ratio	N=1~32767, M=1~65535, N/M=0.02~5000
Speed control mode	Command control mode	Bus communication control/analog quantity
	Torque limit	Internal parameter setting
	Speed control range	1~6000rpm
	Acceleration and deceleration methods	Linear acceleration and deceleration or S-shaped acceleration and deceleration
Torque control mode	Command control mode	Internal instructions
	Speed limit	Internal parameter setting
	Torque control accuracy	±2%
Digital Input/Output	Encoder frequency division pulse output	A-phase, B-phase, Z-phase: differential output
		Frequency division pulse number: (16~32768) can be set arbitrarily
	Assignable input signal	Number of points: 6
		Servo enable/forward drive disable/reverse drive disable/bias count reset/zero speed clamp/alarm reset/origin input
	Assignable input signal	Near origin input/forward limit position/reverse limit position, etc
		Number of points: 6
		Alarm signal/positioning completed/speed reached/servo ready/zero speed detection/brake opening, etc
Protection function		Overcurrent/overvoltage/undervoltage/overload/overheating/encoder error/speed deviation/position deviation/limit,etc
Auxiliary functions		JOG mode/alarm recording/origin setting, etc
Communication interface		Modbus-RTU / CANopen / EtherCAT
Encoder feedback type		Absolute value formula: 17bit/23bit (single or multiple turns)/rotary transformer/user specified

Project		Specification parameters
Protection grade		Ip20
environmental condition	Usage temperature	-20 °C~+55 °C (When the ambient temperature is between 40 °C~50 °C, the average load rate should not exceed 80%)
	Humidity	Below 90% RH (no freezing or condensation allowed)
	Vibration & Impact	Vibration below 4.9m/s ² ; Impact below 19.6m/s ²
	Altitude	The highest usage altitude is 2000m. At an altitude of over 1000m, for every 100m increase, the power decreases by 1.5%
	Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases, oil stains, dust, etc

► External dimensions



Note: For the appearance of SIZE-E and SIZE-F models with power ranging from 2kW to 7.5kW, please refer to the dimension drawings of the ABS10 series.